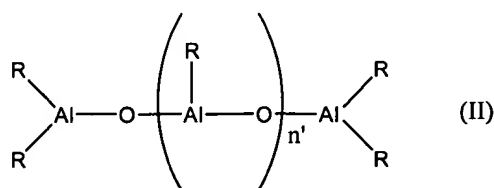
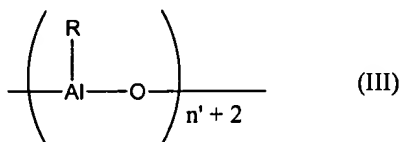


polyolefins must differ by at least 5° C, and wherein the polymerization is carried out at a temperature of from -60 to 200°C, and a pressure of from 0.5 to 100 bar, in solution, in suspension or in the gas phase, in the presence of a catalyst, wherein the catalyst comprises

(A) at least two racemic or s-symmetric metallocenes as transition-metal components and an aluminoxane of the formula II



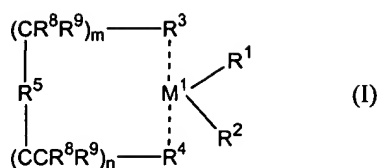
and/or of the formula III



where in the formulae II and III, the radicals R may be identical or different are a C₁-C₆-alkyl group, a C₁-C₆-fluoroalkyl group, a C₆-C₁₈-aryl group, a C₆-C₁₈-fluoroaryl group or hydrogen, and n' is an integer from 0 to 50, and the aluminoxane component may additionally contain a compound of the formula AlR₃, or

(B) at least two racemic or s-symmetric metallocenes as transition-metal components and a salt-like compound of the formula R_xNH_{4-x} or of the formula R₃PHBR'₄ wherein x is 1, 2 or 3, R is identical or different and is alkyl or aryl, and R' is aryl, which may also be fluorinated or partly fluorinated,

where the transition-metal component used comprises at least two metallocenes of the formula I:



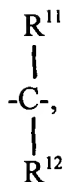
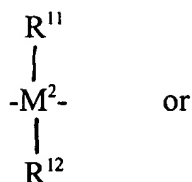
in which

M¹ is Zr or Hf,

R¹ and R² are identical or different and are a hydrogen atom, a C₁-C₁₀- alkyl group, a C₁-C₁₀-alkoxy group, a C₆-C₁₀-aryl group, a C₆-C₁₀-aryloxy group, a C₂-C₁₀-alkenyl group, a C₇-C₄₀-arylalkyl group, a C₇-C₄₀-alkylaryl group, a C₈-C₄₀-arylalkenyl group, or a halogen atom,

R³ and R⁴ are identical or different and are indenyl, cyclopentadienyl or fluorenyl which are optionally substituted with substituents as defined for R¹¹ and R¹² and where the substituents are identical or different or form together with the atoms connecting them a ring,

R⁵ is



where R¹¹ and R¹² are identical or different and are a hydrogen atom, a halogen atom, a C₁-C₁₀-alkyl group, a C₁-C₁₀-fluoroalkyl group, a C₆-C₁₀-aryl group, a C₆-C₁₀-fluoraryl group, a C₁-C₁₀-alkoxy group, a C₂-C₁₀-alkenyl group, a C₇-C₄₀-arylalkyl group, a C₈-C₄₀-arylalkenyl group or a C₇-C₄₀-alkylaryl group, or R¹¹ and R¹² together with the atoms connecting them, form a ring,

M² is silicon or germanium,

R⁸ and R⁹ are identical or different and are as defined for R¹¹ and